TATRC: A pilot study of store and forward telepsychiatry in military settings

Force Health Protection

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Acknowledgments

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- Collaborators and CO-PIs
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Military Relevance

- Expanding need for mental health services due to deployment and current military mission. (OIF/OEF)
- Geographic dispersion of service members creates challenges in providing adequate access to quality psychiatric assessments and care.
- Work load burden on the current psychiatric work force.

Telemental Health

- Growth in real-time video-conferencing has demonstrated this modalities to ability to improve access and quality of care to military and non-military populations.
- “Store and Forward” or asynchronous modes in general telehealth (eg. radiology, pathology, dermatology) have proven effective in diagnosis and treatment.
- To date no systematized form of asynchronous telepsychiatry has been developed.

Store and Forward Telepsychiatry Model

1) **Initial psychiatric assessment** is conducted by a social worker and **recorded** using a high quality digital video camera.

2) The interview is "**tagged**" for clinically relevant material by the clinician using a clicker.

3) **Summary** of the patient's history + recorded video interview **electronically forwarded** to a psychiatrist.

Store and Forward Telepsychiatry Model

4) Psychiatrist **reviews** materials and then provides **assessment** and psychiatric treatment **plan**.

5) Plan **transmitted** to patient's primary care provider.

6) The primary provider then **manages** the patient's psychiatric conditions using the **psychiatric consultation** as well as **email** and **phone** follow-up consultation with the psychiatrist

UC DAVIS PILOT

- Concept developed at UC Davis
- 2008 feasibility pilot of 127 non-emergency psychiatric consultations with English speaking primary care patients living in a medically underserved area.
- Study demonstrated satisfaction, feasibility, diagnostic validity and inter-rater reliability.

UC DAVIS PILOT

- Only 3/127 patient referred to psychiatric follow-up.
- Most patients had recommendations for short-term medication changes. A long term treatment plan provided to PCPs which included several choices of medications to try over a six month period.

UC DAVIS PILOT

- Interventions
  - 2.2 Diagnoses per patient:
  - Mood d/o 70%, Anxiety d/o 55%, Substance Abuse -d/o 40%, Personality d/o 5, Other d/o 3
  - Medication changes – 70%
  - New investigations - 40%
  - Specific psychotherapy/counseling approaches – 52

UC DAVIS PILOT

- Inter-rater reliability
  - Subgroup of 30 patients reviewed by 3
  - independent psychiatrists – 60-73% agreement
  - on primary diagnosis, and 80-93% agreement on any diagnosis

- Provider Satisfaction (Sub-sample of 15 providers)
  - SF consultation led to patient improvement-93%
  - SF consultation met patient needs- 93%

Potential Benefits of S&F Telepsychiatry

- **Improve** efficiency of psychiatric clinical work flow through separating data collection from data analysis and treatment planning.

- **Intensify** the access to mental health specialty assessment and care available in the primary care setting.

- **Increase** the flexibility and availability of psychiatric consultation by better the matching of patients to the appropriate level of care and consultation.

Purpose and Hypotheses of Current Project

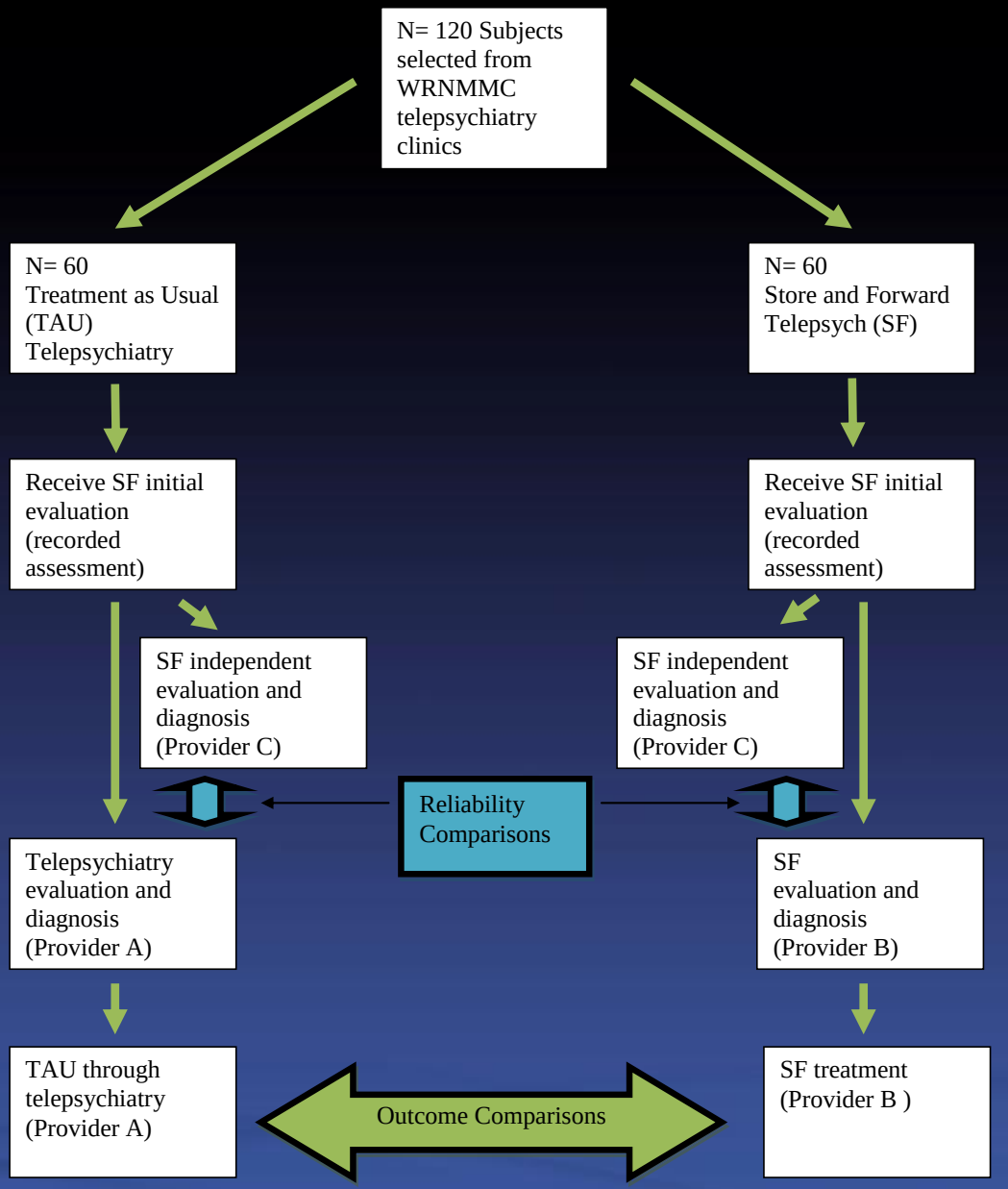
- **Purpose:** To adapt and pilot Store and Forward Telepsychiatry to a military setting.

- **Hypothesis #1:** Store and forward telepsychiatry will produce equivalent outcomes as the current care received by patients.

- **Hypothesis # 2:** Store and forward telepsychiatry assessments will exhibit a high degree of reliability when used in military applications.

Methods

- Prospective randomized controlled design.
- 120 patients seeking psychiatric care in the Walter Reed Army Medical Center Tele-Health Services.
- Outcomes measures will include measures of clinical symptoms, systems of care measurements and comparison of diagnoses given during store and forward assessments.


N= 120 Subjects selected from WRNMMC telepsychiatry clinics
N= 60 Treatment as Usual (TAU) Telepsychiatry
N= 60 Store and Forward Telepsych (SF)
Receive SF initial evaluation (recorded assessment)
Receive SF initial evaluation (recorded assessment)
SF independent evaluation and diagnosis (Provider C)
SF independent evaluation and diagnosis (Provider C)
Reliability Comparisons
Telepsychiatry evaluation and diagnosis (Provider A)
SF evaluation and diagnosis (Provider B)
TAU through telepsychiatry (Provider A)
Outcome Comparisons
SF treatment (Provider B)

Measure

- **Reliability,**
  - Comparison of categorical diagnoses

- **Clinical Outcomes**
  1) The OQ®-45.2
  2) The SF-36
  3) Global Assessment of Functioning (GAF)
  4) The Clinical Global Impression (CGI)
  5) Patient and provider satisfaction measures

Measures

- **System Outcomes**
  1) Length of care
  2) Total clinical time dedicated to care
  3) Cost of care
  4) Need for further follow-up referrals/consultations
  5) Administrative satisfaction

Progress Update June 2010

- IRB approvals, training of clinicians, and protocol refinement
- Addition of trial of video-conferencing (n > 10) for initial assessment
- Development and integration of video recording system (DVR and videoconferencing) for WRAMC Telebehavioral Health Service.
- Research site visit

Next Steps

- Complete pilot
  - Finalize IRB
  - Collect Data
  - Analyze
  - Disseminate results
- Parallel civilian trial and refinement.
  - Other federal agencies VA, IHS.
- Wider DOD trials.
  - Large scale trial and implementation
  - Forward deployment